

REMARKS

Claims 1-34 are pending in this application. Claims 1-6, 8-12, 15, and 16 have been amended. No new subject matter is believed to have been added by these amendments.

The Examiner has acknowledged that claims 9, 10, 12, 15, and 16 are directed to allowable subject matter. Claims 9, 10, 12, 15, and 16 have been rewritten in independent form.

Drawing Objections

The drawings stand objected to under 37 C.F.R. § 1.83(a) for failing to show every feature of the invention specified in the claims, specifically the features of claims 4 and 5. The Applicant believes that the Examiner is misreading the claims. Claim 2 recites that the plurality of separate and distinct *equipment bases includes* at least one bucket and at least one grapple base, not that at least one grapple base includes at least one bucket. Thus, according to the claims, the equipment bases in combination with the claw tines form a distinct and separate bucket and a distinct and separate grapple, where the grapple may be a three- or four-tine grapple. There is no recitation of a combination bucket and grapple as a single unit, as indicated by the Examiner. In contrast, the present invention provides for a bucket and a grapple as individual units making up the demolition equipment system.

Claims 4 and 5 have been amended to clarify that the at least one grapple base defined in claim 2 may be a three-tine grapple (claim 4) or a four-tine grapple (claim 5). The bucket structure is illustrated in Figs. 1 and 3-13. The three-tine grapple is illustrated in Figs. 18-20. The four-tine grapple is illustrated in Figs. 21-23. Thus, the drawings, including Figs. 1-37, clearly illustrate each and every feature of the claimed invention.

It is seldom possible in patent cases to illustrate every claimed feature in a single figure. As noted in 37 C.F.R. § 84(h), the drawings “must contain as many views as necessary to show the invention” in which “modified forms of construction must be shown in separate views”. Consequently, the rules for proper drawings permit the separate and distinct bases (e.g. the bucket, the three-tine grapple base, and the four tine-grapple base) and the

tines attached thereto to be illustrated in separate views. Reconsideration and withdrawal of the drawing objection are respectfully requested.

35 U.S.C. § 112 Rejections

Claims 3 and 4 stand rejected under 35 U.S.C. § 112, first paragraph, for containing subject matter which was not allegedly described in the specification. However, the Examiner discusses claims 4 and 5 under this rejection. The Applicant respectfully responds as if claims 3-5 were rejected.

The Examiner suggests that the specification does not enable a person to make and use the invention since the disclosure does not disclose the three-tine *grapple* or four-tine *grapple including* the at least one bucket, as set forth in claims 4 and 5 (and, assumedly, the two-tine grapple, as set forth in claim 3). The Applicant believes that the Examiner is misreading the claims. Claim 2 recites that the plurality of separate and distinct *equipment bases includes* at least one bucket and at least one grapple base, not that the at least one grapple base includes at least one bucket. Thus, according to the claims, the equipment bases in combination with the claw tines form a distinct and separate bucket and a distinct and separate grapple, where the grapple may be a two-, three-, or four-tine grapple. There is no recitation of a combination bucket and grapple as a single unit, as indicated by the Examiner. In contrast, the present invention provides for a bucket and a grapple as individual units making up the demolition equipment system.

Claims 3-5 have been amended to clarify that the at least one grapple base defined in claim 2 may be a two-tine grapple (claim 3), a three-tine grapple (claim 4), or a four-tine grapple (claim 5). Pages 6 and 13 of the specification describe the bucket. Page 16 of the specification describes the two-tine grapple illustrated in Figs. 14-17. Page 16 of the specification describes the three-tine grapple illustrated in Figs. 18-20. Page 17 of the specification describes the four-tine grapple illustrated in Figs. 21-23.

As discussed above, the drawings are believed to clearly illustrate all of the various separate and distinct bases associated with the present invention, including the at least

one bucket, the two-tine grapple, the three-tine grapple, and the four-tine grapple. One of ordinary skill in the art is clearly able to make and use the present invention, including using the tines with the at least one bucket base, the two-tine grapple, the three-tine grapple, and the four-tine grapple, as clearly described in the specification and shown in the drawings. Reconsideration and withdrawal of the rejections of the claims under 35 U.S.C. § 112, first paragraph, are respectfully requested.

35 U.S.C. § 102 Rejections

Claims 1-3 and 6-8 stand rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 4,799,852 to Ramun. In view of the above amendments and the following remarks, the Applicant respectfully requests reconsideration of these rejections.

The Applicant has amended independent claim 1 to further clarify the invention. According to amended independent claim 1, the invention is directed to a demolition equipment system. The system includes a plurality of separate and distinct equipment bases. Each equipment base forms a part of a separate and distinct demolition equipment unit. Each equipment base includes a support frame receiver. The support frame receivers are similarly configured. The system further includes a plurality of separate and distinct claw tines. Each claw tine includes a support frame configured to engage any of the support frame receivers such that each claw tine is selectively and removably attachable to any of the separate and distinct equipment bases. Thus, each claw tine is capable of forming a part of each separate and distinct demolition equipment unit. Each claw tine is movable between an open and closed position.

Dependent claim 2 recites that the plurality of separate and distinct equipment bases includes at least one bucket and at least one grapple base. Dependent claim 3 recites that the at least one grapple base is a two-tine grapple. Thus, according to the claims, the equipment bases in combination with the claw tines form a distinct and separate bucket and a distinct and separate grapple, where the grapple may be a two-tine grapple. There is no recitation of a combination bucket and grapple as a single unit, as indicated by the Examiner.

In contrast, the present invention provides for a bucket and a grapple as individual units making up the demolition equipment system.

The Ramun patent does utilize claw tines on a bucket attachment. However, the bucket attachment in the Ramun patent is the *only* demolition equipment unit taught or suggested therein. There is no teaching or suggestion of a plurality of separate and distinct equipment bases with each equipment base forming at least a part of a separate and distinct demolition equipment unit having selectable, similarly configured claw tines removably attachable thereto as in the present claimed invention. The present claimed invention allows an operator to form separate and distinct equipment units utilizing the similarly configured claw tines.

The Examiner relies on the bucket 14 as one claw tine and utilizes the pair of parallel tines 21 as the opposing tines. The Examiner's stretched interpretation of the bucket as a claw tine together with the opposing tines formed by parallel tines 21 still does not meet the limitations in independent claim 1 of separate and distinct claw tines that are similarly configured, nor does it meet the limitation of separate and distinct demolition equipment units. Whether the Examiner wishes to categorize the Ramun patent as disclosing a bucket piece of equipment or a grapple piece of equipment, it is still the same single demolition equipment unit. There is no teaching or suggestion of the multi-base/multi-unit system of the present claimed invention.

Claim 2 depends from independent claim 1 and further defines that the separate bases include a bucket base and a grapple base. As discussed above, the Ramun patent does not disclose distinct bases and cannot, in any reasonable interpretation, be read on the bucket base and the separate grapple base as set forth in claim 2. Claims 3 and 6-8 depend directly or indirectly from independent claim 1 and are patentable for the same reasons set forth above for independent claim 1.

For the foregoing reasons, the Applicant believes that the subject matter of claims 1-3 and 6-8 is not anticipated by the Ramun patent. Reconsideration of the rejections of claims 1-3 and 6-8 is respectfully requested.

Claims 1-5 stand rejected under 35 U.S.C. § 102(e) for anticipation by the Ramun patent. However, the Examiner discusses both the Ramun and the Kirkpatrick patents under this rejection. The Applicant responds as if the rejections of claims 1-5 were based on the Kirkpatrick patent, since rejections based on the Ramun patent were discussed above. Independent claim 1 was discussed above.

The Kirkpatrick patent teaches that three-tine and four-tine grapples are known in the art. The existence of two-, three-, and four-tine grapples in the prior art is not disputed. However, the Kirkpatrick patent does not teach or suggest key features of the present invention, which are the construction of a demolition equipment system forming separate and distinct equipment units incorporating the similarly configured tines (as discussed above).

For the foregoing reasons, the Applicant believes that the subject matter of claims 1-5 is not anticipated by the Kirkpatrick patent. Reconsideration of the rejections of claims 1-5 is respectfully requested.

35 U.S.C. § 103 Rejections

Claims 11, 13, and 14 stand rejected under 35 U.S.C. § 103(a) for obviousness over the Ramun patent. In view of the above amendments and the following remarks, the Applicant respectfully requests reconsideration of these rejections.

The Applicant has amended independent claim 11 to further clarify the invention. According to amended independent claim 11, the invention is directed to a claw tine for demolition equipment. The claw tine includes an elongated claw tine body pivotally movable about a pivot point between an open position and a closed position. A support frame is located at a proximal end of the claw body and is configured to engage a support

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frame receiver of the demolition equipment. A claw tine is located at a distal end of the claw body. A hydraulic cylinder is provided for moving the claw tine body between the open position and the closed position. The hydraulic cylinder has a fixed end secured to a base and a cylinder rod end secured to the claw tine body. The total angular rotation of the claw tine body between the open position and the closed position is at least 75 degrees. Claims 13 and 14 depend from and add further limitations to independent claim 11.

The Examiner suggests that it would have been obvious to one of ordinary skill in the art at the time the invention was made to include the specific claimed ranges since discovering the optimum workable ranges involve only routine skill in the art. The Applicant respectfully disagrees.

First, independent claim 11 of the present invention is directed towards the claw tine of the present invention and requires the physical angular rotation of the claw tine body between the open and closed position of at least 75 degrees. The claw tine shown in the Ramun patent has a total angular rotation between the open and closed position of less than 70 degrees. The Ramun patent does not teach the angular rotation set forth in independent claim 11.

In fact, due to the physical constraints of the tine disclosed in the Ramun patent, this prior art tine does not and cannot meet the claimed opening requirement. The single plate support frame receiver 32, shown in Fig. 5 of the present invention, allows the achievement of a wider opening of the tine while protecting the hydraulic cylinder, linkage, and hydraulic components without increasing the operating weight or compromising holding force. This design allows sufficient space to enclose the internal components while increasing the opening of the tine assembly without increasing the width or height of the tine – both of which would have to be dramatically altered to achieve the same results using the double plate design shown in Fig. 1, item 18, of the Ramun patent. The present invention allows for maintaining a sleek compact configuration while providing drastic improvements to the opening feature of the tine assembly.

A secondary benefit of the present invention is that the support frames can be machined prior to attaching them to the base (bucket), a manufacturing shortcut not possible with the earlier Ramun patent design due to alignment issues. This significantly reduces machining expense and overall manufacturing cost. In addition to being less expensive to produce, the present invention also provides increased bearing area at the connection between the support frame 30 and the support frame receiver 32, thereby increasing the service life of the tool.

Furthermore, the claimed opening angular rotation is not an optimization of the existing structure. The structure disclosed in the prior art Ramun patent cannot open up beyond the 70 degree rotation, such that the structure defining the opening range of at least 75 degrees is more than a mere optimization of the prior art claw tine. There is no teaching or suggestion in the Ramun patent, or in the Examiner's stated rejection, of what one of ordinary skill in the art would modify in the prior art to allow for the increased opening set forth in independent claim 11. It is only the Applicant's claimed invention that teaches or suggests this structure.

The Examiner's obviousness rejections of these claims in view of the teachings of the Ramun patent are not fairly supported by a reasonable interpretation of the Applicant's own prior art patent. The prior art set forth in the Ramun patent does not teach or consider any geometric design characteristics. The present invention defines design criteria which address shortcomings in the physical structures of the prior art devices. The Examiner has merely dismissed the specific claim limitations, suggesting that these are mere matters of optimization. However, the claimed parameters define unique structural characteristics of the tine of the present claimed invention and these characteristics are not taught, suggested, or addressed in, or even possible with, the existing prior art structure. It is not clear how a prior art tine that fails to open up beyond 70 degrees can be optimized to operate in a range of at least 75 degrees of opening rotation, between 75 and 100 degrees of opening rotation, and/or 85 degrees as set forth in several of the selected claims. The "optimization" suggested by the Examiner is a complete re-design of the tine found in the prior art without any teaching or suggestion to do so other than the Applicant's own disclosure. As discussed in the

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specification, there are other operating parameters associated with modifying each of these features.

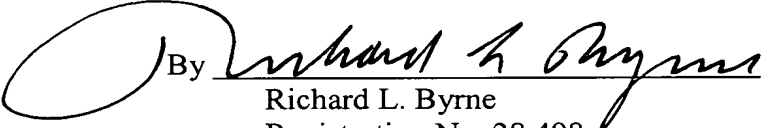
For the foregoing reasons, the Applicant believes that the subject matter of claims 11, 13, and 14 is not rendered obvious by the Ramun patent. Reconsideration of the rejections of claims 11, 13, and 14 is respectfully requested.

CONCLUSION

Based on the foregoing amendments and remarks, reconsideration of the rejections and allowance of pending claims 1-34 are respectfully requested.

Respectfully submitted,

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